

TYPES OF BIRDS IN THE TRING MUSEUM

BY ERNST HARTERT, PH.D.

B. Types in the General Collection, VII.

TUBINARES.

1493. *Phoebetria palpebrata huttoni* Math. = *Phoebetria palpebrata huttoni*.*Phoebetria palpebrata huttoni* Mathews, *B. Australia*, ii, p. 297 (1912—New Zealand seas).

Type: "♀" New Zealand. Purchased from Sir Walter Buller.

This form seems to be separable from *P. palpebrata palpebrata*, nesting on the Kerguelen Is. (and probably other islands in the southern Indian Ocean). Cf. *B. Australia*, Mathews & Iredale, *Manual of the B. of Australia*, i, p. 49, Nichols & Murphy, *Auk*, 1914, pp. 527-529. The form named *antarctica* (ex Solander MS.) in 1912 has been renamed *murphyi* by the same author in *Man. B. Austr.*, i, p. 50, for reasons explained, l.c.

? † 1494. *Phoebetria fusca campbelli* Math. = *Phoebetria fusca* ?*Phoebetria fusca campbelli* Mathews, *B. Australia*, ii, p. 304 (1912—Australian seas).

Type: A specimen labelled "♂ South Pacific," No. 5578, of the Mathews collection. Named after A. J. Campbell of Melbourne.

I cannot see that this type and another "New Zealand" specimen is smaller in all its dimensions than two specimens from Inaccessible and Tristan da Cunha Islands, the somewhat (a few mm.!) shorter tarsus being immaterial and apparently not at all constant. See also *Auk*, 1914, p. 533.

Mathews has proved that the light-backed *Phoebetria* must be called *palpebrata*, the uniform one *fusca*, and these are now admitted to be two species. As their breeding grounds, however, are apparently quite separated, I do not see why they should *not* be treated as subspecies of one species. But this is only a question; our knowledge of these birds, as expressly emphasized by Mathews 1912, and by Nichols and Murphy 1914, is very meagre. We hope that Dr. Murphy will soon be able to review them more thoroughly on the hand of fresh and intelligently collected material. Splendid figures of the bills are in Mathews' *B. Australia*, p. 294, and in *Manual B. Australia*, pl. ii!

TUBINARES.

† 1495. *Diomedea culminata mathewsi* R. = *Diomedea chrysostoma*.*Diomedea culminata mathewsi* Rothschild, *Bull. B.O. Club*, xxix, p. 70 (1912—"Campbell Island, New Zealand seas").

Type: ♀ juv. (immature) bought frozen on the London market in February 1903, supposed to be from Campbell Island.

The differences stated to distinguish this form are those of young birds;

¹ Continued from NOVITATES ZOOLOGICAE, 1925, p. 276. See also NOVITATES ZOOLOGICAE, 1918, pp. 4-63; 1919, pp. 124-178; 1920, pp. 425-505; 1922, pp. 365-412; 1924, pp. 112-134; 1925, pp. 138-157 and 259-276.

of the three bought in the London market, two are juvenile, the third adult, with top of head, cheeks, and throat grey, and the culmen yellow, while in the younger birds the culmen is dark.

Mathews, in his *Birds of Australia*, ii, p. 280, separates *Thalassogeron*¹ *chrystostoma chrystostoma*: "Cape seas (breeding)."

Thalassogeron chrystostoma harterti: Kerguelen (breeding).

Thalassogeron chrystostoma culminata: Australian seas (breeding).

Thalassogeron chrystostoma rothschildi: New Zealand seas (Campbell Island breeding).

He, however, suggested these forms rather than making them clear. Differences of "*culminata*" and "*chrystostoma*" are not even indicated. I do not know where in the "Cape Seas" the species breeds, and it seems to me clear that the form nesting on Kerguelen, South Georgia, Marion, and Crozet Islands goes north, when not breeding, to the "Cape Seas." The birds from Campbell Island are like those from Kerguelen, and these are probably the birds which range north to the Bass Straits and elsewhere on the Australian coasts. No Australian breeding place is indicated by Mathews!

Mathews has, I think, correctly used the name *chrystostoma* (Forster 1785!) for this species. Having grasped better than most former writers, that many Petrels and other sea birds have a much more restricted distribution than had been supposed before, and have separable subspecies in almost every breeding colony, he, apparently, thought this was the case in all species, but many Petrels (and some other sea birds) are after all widely spread, and stray away very far from their breeding places out of the nesting season. It is, of course, not always safe to generalize facts in zoology, animals not being machines.

† 1496. ***Thalassogeron chrystostoma harterti*** Math. = *Diomedea chrystostoma*.

Thalassogeron chrystostoma harterti Matthews, *B. Australia*, ii, p. 280 (1912—"South Indian Ocean, Kerguelen Island breeding").

Type: ♂ ad. Latitude 46°52' South, long. 85° East. R. J. England coll.

This seems to be the specimen figured as *Th. c. culminatus* on plate 97 of the *B. of Australia*.

† 1497. ***Thalassogeron carteri*** Rothseh. = *Diomedea chlororhynchos*.

Thalassogeron carteri Rothschild, *Bull. B.O. Club*, xiv, p. 6 (1903—Point Cloates, N.W. Australia).

Type: A non-adult male, with injured wing and in very emaciated condition, caught at Point Cloates, in West Australia, 12.v.1900. Tom Carter coll. No. T.C. 142.

When this specimen was described it was not recognized that it was juvenile, as there was no material available. It was described as a species, as the relationship was uncertain. Later on Mathews treated it as the West Australian subspecies of *D. chlororhynchos*, and called it the "Westralian Yellow-Nosed Mollymawk," in opposition to the "East Australian Yellow-Nosed Mollymawk." There is, however, no West Australian subspecies known to exist—the type being, apparently, the only known specimen from West Australia—no more than an East Australian one, these birds not being known to nest in either East or West Australia; their breeding places are on Gough Island, Nightingale, and other

¹ I cannot appreciate the differences between *Thalassogeron* and *Diomedea*, as some species are intermediate.

islands of the Tristan da Cunha group, and from there they visit the Australian coasts. Off East Australia they are sometimes common. There is, in the Mathews collection, a wonderful series collected for Messrs. Tost and Rohu, in Broken Bay, N.S. Wales, not far from Sydney; among these is a juvenile specimen exactly like the type of *T. carteri*, with beak quite black, and less grey on the sides of the head. This series was not available to Mathews when he wrote the second volume of the *Birds of Australia*. He seems now to have recognized that neither *carteri* nor his *bassi* are separable subspecies, as in the *Manual of the Birds of Australia*, vol. i, 1921 (no more has appeared so far!), he and Iredale say that the "races are not yet determined," and that "the West Australian bird" (meaning *carteri*) was named from an immature specimen and "the Tristan da Cunha bird was described as *D. eximia* Verrill owing to a misunderstanding of the species"; it was, as a matter of fact, described from Gough Island. Mathews adds "When breeding places are discovered, forms may be accurately circumscribed." Since several breeding places are now known, and the birds from them seem to be indistinguishable, we may regard *chlororhynchos*, *carteri*, *eximia*, and *bassi* as synonyms.

1498. *Diomedea immutabilis* Rothsch. = *Diomedea immutabilis*.

Diomedea immutabilis Rothschild, *Bull. B.O. Club*, i, p. xlvi (1893—"Laysan Island, North Pacific").

Type: ♀ ad., Laysan, 22.vi.1891. H. C. Palmer coll. No. 1163.

Cf. also Rothschild, *Avifauna of Laysan*, pp. 57, and chiefly 291, and plates.

1499. *Diomedea bulleri* Rothsch. = *Diomedea bulleri*.

Diomedea bulleri Rothschild, *Bull. B.O. Club*, i, p. lviii (1893—"New Zealand").

Type: Adult, said to be from "New Zealand," which meant somewhere near New Zealand. Ex Sir Walter Buller collection.

The nearest species to *D. bulleri* seems to me to be *D. melanophris*, but—apart from the different colour on head and neck and the grey latericorn of the bill—it differs from the latter by having a line of (apparently soft) skin, protruding a few mm. along the lower bill, along the base of the lower mandible. It seems that the only known breeding place of *D. bulleri* is the Snares Islands, but *D. chrysostoma* breeds on Campbell Island, not far away for an Albatross.

It is obviously impossible to recognize the genera *Diomedea* and *Thalassogeron* as different.

1500. *Thalassogeron salvini* Rothsch. = *Diomedea cauta salvini*.

Thalassogeron salvini Rothschild, *Bull. B.O. Club*, i, p. lviii (1893—"New Zealand").

Type: Adult "♀," said to be from New Zealand. Received from Sir Walter Buller.

I have no doubt that *salvini* must be treated as a subspecies of *cauta*. Unfortunately work with New Zealand sea birds and others is often hampered by the unscientific labelling. Very often neither exact localities, nor coloration of bill, iris, and feet, nor the sex, nor the condition of sexual organs, whether caught on breeding place or at sea, is indicated; not in one instance are all these important details on any specimen of the Buller collection.

1501. *Oestrelata nigripennis* Rothsch. = *Pterodroma cookii nigripennis*.

Oestrelata nigripennis Rothschild, *Bull. B.O. Club*, i, p. lvii (1893—Kermadec Islands).

Type : Adult, Sunday I., Kermadec group.

I agree with Mathews and Iredale that *nigripennis* can be looked upon as a subspecies of *cookii* (and *defilippiana*).

1502. *Aestrelata wortheni* Rothsch. = *Pterodroma wortheni*.

Aestrelata wortheni Rothschild, *Bull. B.O. Club*, xii, p. 62 (1902—Pacific Ocean, 3° S., 118° 45' W., not far from the Galapagos Islands).

Type : ♀ Pacific Ocean, 3° S., 118° 45' W., 2.i.1901. R. H. Beek coll. No. 143.

This is probably a subspecies of *Pt. magentae*, of which, however, I am not able to compare a specimen. It is smaller and darker than the latter.

1503. *Aestrelata oliveri* Math. = *Pterodroma oliveri*.

Aestrelata oliveri Mathews, *Austral Avian Record*, ii, p. 113 (1914—Kermadec Islands).

Type : “ ♂ ” ad., Sunday Island, Kermadec group, 7.iii.1913. King Bell coll. No. 158, No. 18479 of the Mathews collection.

P. oliveri appears to be quite a distinct form, unknown till 1914. I am not at all sure if *parvirostris*, which has yellow legs, is its nearest ally ; the fact that the legs are described as “ slightly pink ” points more towards *magentae*, which is, however, larger. I would not call the upperside “ dark dull bluish black,” but greyish black, with a brownish tinge, especially on the wings. The wing measures 278 mm., bill from end of frontal feathering 28 mm. The under wing-coverts are dark brownish slate, only along the arm is a patch of white feathers.

† 1504. *Puffinus obscurus atlanticus* Rothsch. and Hart. = *Puffinus assimilis baroli*.¹

Puffinus obscurus atlanticus Rothschild & Hartert, *Bull. B.O. Club*, xxvii, p. 43 (1911—“ North Atlantic Isles ”).

Type : ♂ Porto Santo, 16.ii.1895. Ex Padre Schmitz.

1505. *Puffinus reinholdi reinholdi* Math. = *Puffinus reinholdi reinholdi*.

Puffinus reinholdi reinholdi Mathews, *Birds of Australia*, ii, pt. 1, p. 74 (1912—New Zealand).

Type : ♂ ad., New Zealand, exact locality not revealed. Bought by Lord Rothschild from Sir Walter Buller, given in exchange to Mr. Mathews. Marked as type by Mathews. This is also the specimen figured in *B. Australia* (pl. 74).

This is the bird for a long time called *gavia*, but I agree with Mathews (cf. *B. Australia*, ii, p. 53) that the description of *gavia* as blue-black above does not apply to this species, which is above blackish brown or “ sooty black ” as described in the *Manual of the Birds of Australia*.

¹ Cf. *Practical Handb. Brit. B.*, ii, p. 426, *Vög. pal. Fauna*, pp. 1421, 1422. There is some uncertainty about the name *obscurus*, therefore *assimilis* has been adopted ; there is, however, also some uncertainty about the name *baroli* ; if the latter is rejected our *atlanticus* must be called *godmani* Allen 1908.

† 1506. *Puffinus reinholdi huttoni* Math. = *Puffinis reinholdi reinholdi*.

Puffinus reinholdi huttoni Mathews, *Birds of Australia*, ii, p. 77 (1912—Snares Island, accidental in South Australia).

Type: “♀” ad., Snares Islands, south of New Zealand. A specimen received by the Tring Museum from Dannefaerd, given in exchange to Mathews.

Described as having a longer bill and longer wings, and more brown on the sides of neck and chest.

There was no ground on which to stand, when this form was named, as these characters are visible in only one of our Snares Islands specimens, in the other not! The wing is 227 mm. long, but the wing of others, not from the Snares, ranges up to 221; in our second Snares bird the primaries are still slightly growing, so that the exact length cannot be correctly stated.

? † 1507. *Reinholdia reinholdi byroni* Math. = ? *Puffinus reinholdi byroni*.

Reinholdia reinholdi byroni Mathews, *Austral Avian Record*, i, p. 187 (1913—“Type, Byron Bay, North New South Wales, No. 15842. Range, New South Wales”).

Type: “♂?” “Eastern Australia,” Tost and Rohu coll.

In *Bull. B.O. Club*, xxxvi, p. 89, Mathews says: “The type-locality of *Reinholdia reinholdi byroni* Mathews and *Cookilaria cookii byroni* Mathews is given as Byron Bay, Northern New South Wales. Both these I consider now to be wrong: the first comes from Five Islands, south of Woollongong, New South Wales, where I believe it breeds; the other from Cabbage Tree Island, and, if so, is a synonym of *leucoptera* (Gould).” The words “I consider” and “if so” suggest that even now there is some doubt about the exact localities: if specimens are properly labelled their localities require no consideration, and no “if.”

The type-specimen is obviously juvenile, and the outer primaries are not at all full grown, a fact that must have escaped the author, or he would have mentioned it. Also the “darker upper-coloration” may be due to its not being an adult bird, as the young of these Petrels have a more blackish upper surface.

We have now quite a series of specimens from the sea east of Australia, collected by Tost and Rohu (S. E. Rohu), from Broken Bay and Bondi Beach, N.S. Wales, June, July, to December. They average smaller than *P. reinholdi reinholdi* from the New Zealand Seas, but a number of them are moulting, and series from certain breeding places are not available. I doubt if the coloration is actually darker, but from our material it looks as if it was *generally* darker—but not constantly. If there really is a nesting-place somewhere on the Australian coast (of which Australian specialists should be aware?), “*byroni*” would probably be a subspecies, but I am not sure if not all these birds from East Australian waters are birds that pass their time there after the breeding season on the islands of New Zealand, including the Snares.

(As I had to examine all these birds I have included in this list some Australian birds from the Mathews collection, which should be discussed at a future time.)

† 1508. *Reinholdia reinholdi melanotis* Math. = *Puffinus reinholdi reinholdi*.

Reinholdia reinholdi melanotis Mathews, *Bull. B.O. Club*, xxxvi, p. 89 (1916—Kaipara Beach, near Helensville, Waitemata Co., North Island, New Zealand).

Type: ♂ jun. Kaipara Beach, 10.i.1915. Robin Kemp coll. No. 4758.

Described as being blackish above and in being smaller. It is, however, a

juvenile character, to be blacker above! Also the small size is of no value, as the outer primaries are *in moult*; therefore the length of wing, correctly given by Mathews as 189 mm., is not comparable! The other characters mentioned in the description are those of any *reinholdi*.

† 1509. **Cinathisma cyaneoleuca** Hull = *Puffinus reinholdi byroni* or *reinholdi*.

Cinathisma cyaneoleuca Hull, *Emu*, xv, p. 205 (1916—"Open sea between Ulladulla and on Brush Island, N.S. Wales").

Type: ♀ Open sea near Ulladulla, 5.xii.1915.

This new "genus" and species is merely a *P. reinholdi*, of which flocks were observed at the time. It is to be hoped that Australian ornithologists are not following Mathews in his endless splitting of supposed genera. The genus "*Cinathisma*" is characterized as follows: "Differs from *Puffinus* in the stronger bill, shorter in proportion to length of bird; shorter wing, tail square (not rounded), rectrices 9." The bill, however, is *not* stronger than in typical *Puffinus* (the type of which genus is *Puffinus puffinus*); the wing-feathers of the ♀ are moulting, so that the exact length is not known, but however that may be, there are *Puffini* with even shorter wings, and a somewhat shorter wing is not a generic character; the tail of the ♀ type is *not* square, but rounded.

This specimen is marked "type," but there is at its back a note that there is also a male type, in Mr. H. L. White's collection! The author would not have marked this ♀ as type if it were very different from the "male type." The plate accompanying the description (not quoted in the text) shows the bill much thicker than in the ♀ type, and the coloration of the feet can hardly be as described and figured, for the inner toes are yellowish, as in all *reinholdi*. "Rectrices 9" is misleading, as all *Puffini* have 12, and the ♀ type has 10.

(In the *Emu*, i.e., it is stated that the description had already been published in *Bulletin* No. 5 of the R.A.O.U., 21.xii.1915. Mathews, in the *Bibliography on the B. of Australia*, p. 22 (1923), says that this *Bulletin* was not published, but only distributed in small numbers to a few Australian ornithologists.)

1510. **Puffinus bannermani** Math. and Ired. = *Puffinus assimilis bannermani*.

Puffinus bannermani Mathews & Iredale, *Ibis*, 1915, p. 594 (Bonin Islands).

Type: Adult, North Iwojima, Bonin Islands, February 1910. From Alan Owston's Japanese hunters. Purchased from Owston by G. M. Mathews.

I have no doubt after all that this form is a subspecies of *P. assimilis* (cf. *Vög. pal. Fauna*, pp. 1421-1423, where I reviewed this group). Probably, also, if some visitor to Christmas Island in the Pacific Ocean brings us the Petrel probably nesting there, we may after all find it to be the form which has for many years been called *P. obscurus*. I have, however, agreed with Mathews¹ not to accept the name *obscurus*, but I cannot follow him in grouping the numerous forms under two species, *assimilis* and *l'herminieri*, but look upon them as subspecies of *assimilis*.

¹ In the *B. Australia*, vol. ii, Mathews has written over 20 pages on these Petrels, also in *Ibis*, 1915, p. 596; in the description of *P. obscurus*, however, is nothing absolutely disagreeing with the bird now called *minor*, but we do not know the Christmas Island form! As the description is too superficial it is for the time being better not accepted.

1511. *Puffinus lherminieri becki* Math. = *Puffinus assimilis becki*.

Puffinus lherminieri becki Mathews, *B. Australia*, ii, p. 70 (1912—"Culpepper and Wenman Islands, Galapagos group").

Type: ♀ ad., Culpepper Island, northern Galapagos, 27.vii.1895. C. M. Harris coll. No. 184.

Mathews merely said that this form was constantly larger and had the under wing-coverts and axillaries lighter than a series from the southern Galapagos Islands. The amount of white on the under wing-coverts and axillaries is, however, variable, and there are specimens from Culpepper which have these parts quite as dark as specimens from the southern islands, *P. a. subalaris*, but among the latter is not one in which these parts are practically quite white, as they are in the type and the one specimen in the British Museum. The wings of our adult, *P. a. becki*, measure 194, 203 (five specimens), 205, 208 mm. In *P. a. subalaris* 190 to 193, once 195, once 197 mm. (nine measured). The differences are therefore slight, and it would be useful if they were confirmed from examination of the material accumulated in American museums.

1512. *Puffinus assimilis kemp* Math. = *Puffinus assimilis kemp*.

Puffinus assimilis kemp Mathews, *B. of Australia*, ii, p. 69 (1912—Chatham Islands).

Type: ♀ ad., Chatham Islands. Purchased from Dannefaerd.

1513. *Puffinus assimilis tunneyi* Math. = *Puffinus assimilis tunneyi*.

Puffinus assimilis tunneyi Mathews, *Birds of Australia*, ii, p. 71 (1912—"West Australian Seas, type Boxer Island off Esperance Bay, West Australia").

Type: ♂ Boxer Island, 14 miles west of Esperance, S. West Australia, 4.vi.1906, evidently breeding there. J. T. Tunney coll.

I cannot in the least confirm Mathews' and Iredale's statement that this form is paler than *assimilis*, nor has it "more white on the forehead," but it seems to be smaller. (Cf. *Manual B. Australia*, i, p. 23, 1921.)

† 1514. *Puffinus assimilis howensis* Math. = *Puffinus assimilis assimilis*.

Puffinus assimilis howensis Mathews, *Austral Avian Record*, ii, p. 125 (1915—Lord Howe Island).

Mathews states that *assimilis* was described by Gould from Norfolk Island. In 1915 he says of his "*howensis*" that it is darker above than *assimilis*, and has a shorter bill. It does not, however, differ from Norfolk Island specimens, but the bills are smaller than in the Kermadec form. Mathews unites the Kermadec form with *assimilis* from Norfolk I., but it seems that the Kermadec birds require a new name, as they have larger bills than the Norfolk and Lord Howe specimens. The Kermadec birds seem to me to belong to *gavia*, and not to *assimilis*.

† 1515. *Puffinus chlororhynchus iredali* Math. = *Puffinus pacificus pacificus*.

Puffinus chlororhynchus iredali Mathews, *Bull. Brit. Orn. Club*, xxvii, p. 40 (1910—Kermadec Islands).

Type: ♂ Sunday Island, Kermadec group, 30.i.1895. H. H. Travers coll.

I have adopted Mathews' nomenclature, who accepted Gmelin's name *Procellaria pacifica* for the Petrel generally called *chlororhynchus*; he suggested

Kermadec Islands as the substituted terra typica, though it is almost certain that Latham's "Pacific Petrel," on which Gmelin's name was based, did not come from there!

† 1516. **Puffinus pacificus royanus** Math. = *Puffinus pacificus chlororhynchus*.

Puffinus pacificus royanus Mathews, *B. Australia*, ii, pp. 83, 85 (1912—"East Australia").

Type: ♂ picked up dead on Bondi Beach, near Sydney, N.S. Wales, 27.iii.1904, ex coll. Matthews, No. 252.

I cannot see how the birds from East Australia, Lord Howe and Norfolk Islands (which Mathews wisely unites) differ from *chlororhynchus* of West Australia, of which I found two in the Mathews collection. The supposed pale colour of the bill is obvious in the type (which was found dead!), but not in other East Australian specimens, and the size varies to some extent.

? † 1517. **Puffinus pacificus hamiltoni** Math. = *Puffinus pacificus chlororhynchus*.

Puffinus pacificus hamiltoni Mathews, *B. Australia*, ii, p. 82 (1912—Seychelles).

Type: ♂ "The Cousin," Seychelles, 9.vii.1904. Thibault coll.

I cannot appreciate the supposed differences of this form; there seems to me to be nothing in the colour, but dirty and worn examples are darker, and there is a good amount of individual variation, which is best displayed in the large series from Australia in the Mathews collection; nor do I think that the bills are differently coloured (see among others Mathews' remarks). All I can see is that the bills in the majority of our specimens are somewhat slenderer, and often longer, than in *chlororhynchus*, but some specimens of the two forms are indistinguishable. As only 14 Seychelle examples are available, I prefer to leave the question open, whether they should be distinguished or not. Mathews would, I do not doubt, separate them because of their different breeding place. While I appreciate Mathews' apparent theory that the same Petrel cannot occur in two widely separated breeding places, we must not model facts according to any theory or rule, but must deduce from facts only.

? † 1518. **Puffinus pacificus alleni** Math. = *Puffinus pacificus chlororhynchus*.

Puffinus pacificus alleni Mathews, *B. Australia*, ii, p. 83 (1912—San Benedicto Island, Revilla Gigedos group, off Mexico).

Type: ♀ San Benedicto Island, 30.iv.1897. A. W. Anthony coll. No. 813.

Mathews says (t.c.p. 84) that *P. p. alleni* is separable from any other form of *P. pacificus* by its "more powerful" bill, but *P. pacificus pacificus* has a more powerful bill. Perhaps Mathews originally meant to say less powerful bill, and forgot afterwards. I cannot see satisfactory differences of our three specimens from Australian *chlororhynchus*, but having seen only three examples I leave the question open for the moment. Mathews also speaks of "light birds" from San Benedicto, but I do not know where he saw them.

As I said before, I adopt Mathews' acceptance of Gmelin's name, though I consider it unfortunate that he fixed the type locality Kermadec Islands for the name *pacificus*, but as I cannot disprove it I adopt it. Kermadec specimens are exactly like the Australian *chlororhynchus*, only their bills are as a rule much larger, wings and tail longer.

† 1519. **Puffinus pacificus laysani** Math. = *Puffinus pacificus cuneatus*.

Puffinus pacificus laysani Mathews, *B. Australia*, ii, p. 83 (1912—Laysan).

Type : ♀ ad., Laysan Island, 22.viii.1896. Professor and Mrs. Schauinsland coll.

There can be no doubt that the specimens from Krusenstern Islands,¹ Laysan, French Frigate Island, Kauai, Bonin Islands, Volcano Islands, and the Pescadores are all one and the same, and *laysani* is a pure synonym.

I have no doubt—and Lord Rothschild agrees with me—that Mathews' former view, that *cuneatus* with white underside and *pacificus* (*chlororhynchus*) are subspecies of one species, is correct. Unfortunately, Mathews later abandoned this view and considered *pacificus* and *cuneatus* two different species, which hybridize occasionally—"a commingling of the two on one or two groups of islands in different ratios, which strongly suggests hybridism and the separation of the two as distinct species," as they put it (*Ibis*, 1915, p. 600). It is true that in the Kermadec Islands, in the Australian Seas, and on the Seychelles, etc., only the form with dark underside is known, while *cuneatus* is nearly always light on the underside, but we have in Tring a bird with dark underside from French Frigate Island, while others from the Bonin Islands show traces and mottlings of brownish grey; as the dark-breasted form is otherwise not known from these islands, this cannot reasonably be supposed to be hybridism, but must be individual variation. Moreover, according to Anthony, white-breasted and dark-breasted specimens inhabit the Revilla Gigedos group west of Mexico. (See Mathews, *B. Australia*, ii, *Ibis*, 1915, p. 600, *Manual B. Australia*, i, p. 26, Oberholser, *Auk*, 1917, p. 474, also Rothschild's "Avifauna of Laysan.")

We wish here to call attention to the importance of collecting in a scientific way; this is very seldom done, and Lord Rothschild and I consider it especially important with sea birds; we mean that the colours of the soft and other unfeathered parts should be marked, that the size of the ovaries and testes should be well described, that it should be fully stated if the birds were breeding or not, and whether they were moulting or not. Moreover, there are many breeding places of sea birds, from where skins are not available in any collection, though they have been visited by Japanese plume-hunters.

1520. **Puffinus bulleri** Salvin = *Puffinus bulleri*.

Puffinus bulleri Salvin, *Ibis*, 1888, p. 354 (New Zealand).

Type or cotype : ♂ Waikanae, New Zealand, from the late Sir Walter Buller's collection. This specimen is figured in Godman's *Monograph of the Petrels*, pl. 23. This specimen is the one formerly in Buller's collection. It seems that this species (which is *not* a subspecies of the *pacificus* or *cuneatus* group) is still very rare, and almost unknown. As far as I know only 5 have been recorded from New Zealand, and one on the sea off California; it would be desirable to compare the latter with the types. Our second specimen, a male, was purchased from H. H. Travers, and was obtained at Cuvier Island, 5.v.1900. Probably this petrel breeds on some island or islands near New Zealand, but the nesting-place is not yet known. It differs from *cuneatus* and its allies besides other characters in the strongly marked difference of the colour of the outer and inner toes. The

¹ This island, or rather Krusenstern Islands or Rocks, is south of Lisiansky and Laysan, and has nothing to do with the Marshall Islands, from which it is more than a thousand miles away!

outer toe is dark brown in skins (blackish brown in a spirit specimen, according to Buller), but not greyish blue as in the plate in the *Monograph of the Petrels*.

† 1521. *Neonectris griseus pescadorei* Math. = *Puffinus griseus*.

Neonectris griseus pescadorei (sic!) Mathews & Iredale, *Ibis*, 1915, p. 602 (Pescadore Islands).

Type: May 1909, Pescadores or Fisher Islands, near Formosa. Bought by Mathews from Owston, who had it from his Japanese collectors. Cf. *Vög. pal. Fauna*, pp. 1426, 1427. I doubt that these birds were breeding. The body plumage is in moult.

† 1522. *Neonectris griseus missus* Math. = *Puffinus griseus*.

Neonectris griseus missus Mathews, *Ibis* 1915, p. 602 (Kurile Islands).

Type: "Kurile Islands," bought from Alan Owston. Probably not nesting on Kurile Islands.

† 1523. *Neonectris griseus nutcheri* Math. = *Puffinus griseus*.

Neonectris griseus nutcheri Mathews, *Austral Avian Record*, iii, p. 54 (1916—"Type Sydney, New South Wales").

Type: "♂," "picked up dead at Bondi Beach, March 1904, by Moffatt."

No reason is given at all why this new name was created, but it is said that it was given to the bird figured and described in *B. Australia*, ii, pl. 77, p. 92. In that place it is stated that this Bondi Beach specimen is the one figured and described. No diagnosis being attempted, the name is virtually a nomen nudum, though not technically. It is inconceivable why it has been published.

(About the impossibility to separate the genus "*Neonectris*" from *Puffinus* see Oberholser, *Auk*, 1917, p. 472. Oberholser, however, accepts the genera *Calonectris*, *Ardenna*, and *Thyellodroma*, which are usually united with *Puffinus*.)

1524. *Pelagodroma marina maoriana* Math. = *Pelagodroma marina maoriana*.

Pelagodroma marina maoriana Mathews, *B. Australia* ii, p. 24 (1912—"New Zealand, breeding Chatham and Auckland Islands").

Type: Juv. Chatham Islands, no original labels, perhaps collected by Hawkins.

The series from the Chatham Islands shows this form to have a shorter bill, though single specimens cannot always be distinguished. This is probably the bird described by Solander in his unpublished MS. in the British Museum as "*passerina*"—see Mathews, *l.c.* p. 24.

1525. *Oceanites oceanicus exasperatus* Math. = ? *Oceanites oceanicus exasperatus*.

Oceanites oceanicus exasperatus Mathews, *B. Australia*, ii, p. 11, pl. 69 (1912—New Zealand, south to Cape Adare, Australia).

Type: A ♂ (sexed by Cullingford) that had come frozen to the London Market and was said to have come from the islands south of New Zealand.

It seems that the birds from the New Zealand seas and Cape Adare are generally larger than those nesting south of the Atlantic Ocean, on South Georgia and Kerguelen (adult and pullus collected by Robert Hall), but more breeding birds should be examined, the different size not being certain. Cf. *Vög. pal. Fauna*, p. 1412.

† 1526. *Bulweria bulweri pacifica* Math. and Ired. = *Bulweria bulwerii bulwerii*.

Bulweria bulweri pacifica Mathews & Iredale, *Ibis*, 1915, p. 607 ("The Pacific-breeding Bulwer's Petrel").

Type: ♂ Iwojima, Bonin Islands, 15.vii.1911.

Separated "on account of its stronger bill, no other difference being apparent." Unfortunately even the supposed bigger bill is in no way constant, and the "Pacific-breeding" *bulwerii* cannot be separated from those of the Atlantic Ocean!

1527. *Pagodroma confusa* Math. = *Pagodroma confusa* (?).

Pagodroma confusa Mathews, *B. Australia*, ii, p. 177 (1912—Cape Adare, Antarctic).

Type: Unsexed, without original label, said to be from Cape Adare, probably a duplicate from the National Antarctic Expedition.

Quite a number of naturalists have remarked upon the various sizes of these "Snowy Petrels," but they did not consider them to be different species. Sharpe, in his report on the "Southern Cross" birds, p. 148, gave a great many measurements of the wings; Wilson, in the *Zoology of the National Antarctic Expedition*, p. 88, mentioned the variability in size, but nobody considered them to be two different species, occurring in the same areas. Mathews took the plunge, and described *P. confusa* from Cape Adare, from where the smallest specimens have also been recorded; he also believed that there were several subspecies of the smaller species.

While there does not seem to be any good reason to talk of several subspecies, it would indeed appear to be the case that two species, *only differing in size*, live together. This is a peculiar instance, and special investigation by a zoologist is required to settle this problem. The question is if this species might not vary in size more than usual, though in that case intermediate examples should not be rare. A female collected by Nicolai Hanson at 65° 3' Southern latitude during the Southern Cross Expedition, while in wing and feet like the largest, has the bill smaller, but not as small as that of small specimens.

I confess that I cannot understand all the measurements of Forster (cf. Mathews, l.c.), but we must accept Mathews' ruling that the name *nivea* belonged to the small form. The question is if large and small birds nest in the same places—if they have separate nesting-places the large and small birds would best be treated as subspecies, occurring together when not breeding.

1528. *Procellaria aequinoctialis steadi* Math. = *Procellaria aequinoctialis steadi*.

Procellaria aequinoctialis steadi Mathews, *Birds Australia*, ii, pp. 108, 112 (1912—"Breeding on Antipodes and Auckland Is.").

Type: ♂ ad., Antipodes Islands, collected by Dannefaerd. Apparently Mathews was quite justified in giving a name to the form breeding on the Antipodes (and Auckland) Islands, south of New Zealand, which have usually a smaller white chin-spot than the birds from the Cape Seas, in fact sometimes there is only a vestige of the white spot left. Such birds with small white chin-spots, however, are also common in the Cape Seas. Table Bay for instance.

? † 1529. **Procellaria aequinoctialis mixta** Math. = ? *P. aequinoctialis aequinoctialis*.
Procellaria aequinoctialis mixta Mathews, *B. Australia*, ii, p. 111 (1912—"Cape Seas. Probably the breeding bird of Kerguelen Islands and Crozets").

Type: ♂ ad., South Atlantic, 300 miles north of Capetown, 26.iv.1909. Tom Carter coll. No. 3748 of the Mathews coll.

I cannot see that the theory of Mathews, that the birds nesting on the Kerguelen and Crozet Islands and occurring in the "Eastern Cape Seas" (*Manual B. Austr.*, i, p. 30), have larger chin-spots than those from the Falklands and South Georgia, can be endorsed. There seems to be no reason for this belief. We have a South Georgian specimen with a rather small chin patch. The amount of white on the chin varies much, and the biggest white patch is also seen among some birds from Table Bay, which cannot be called "Eastern Cape Seas"; moreover, the type is from the Atlantic Ocean, 300 miles north of Capetown, and not from east of Cape of Good Hope.¹ Most authorities now believe that the "Spectacled Petrel," *Procellaria conspicillata* Gould, is only a variety or mutant of *aequinoctialis*, while Mathews treats it as in 1912 as a subspecies of the latter, in 1921 as a species. It is true that in some specimens the white extends in irregular spots on to the sides of the head, but this cannot be called an intergradation between *aequinoctialis* and *conspicillata*; at the present we must therefore treat *conspicillata* as a separate subspecies and await the discovery of its nesting home.

† 1530. **Pseudoprion turtur huttoni** Math. = *Pachyptila turtur turtur*.

Pseudoprion turtur huttoni Mathews, *B. Australia*, ii, p. 220 (1912—Chatham Islands nesting).

Type: Chatham Islands, H. C. Palmer coll.

All the series of Chatham Islands birds collected by H. C. Palmer are without exact localities and without dates and sexes; they had numbers tacked on to each skin, referring to a full list in a diary which was burnt by the carelessness of a late taxidermist in Cambridge.

I cannot see sufficient reason for separating the Chatham Islands series from East Australian *P. turtur turtur*. Mathews says that the bill of *huttoni* is stronger and the wing longer, but I cannot find this to be constant; there is, of course, some individual variation, and probably the females have narrower bills and often shorter wings, judging from a few reliably sexed specimens available; I don't know if this has ever been considered, but it requires attention!

1531. **Pseudoprion turtur crassirostris** Math. = *Pachyptila turtur crassirostris*.

Pseudoprion turtur crassirostris Mathews, *B. Australia*, ii, p. 221 (1912—Bounty Island).

Type: ♂ ad., Bounty Island, south of New Zealand, 2.vii.1875. A. Reischek coll.

As Mathews states, this form from Bounty Island has a more powerful bill and, as a rule, longer wing than *P. turtur turtur*.

¹ Edwards, on whose figure and description Linné's *P. aequinoctialis* was founded, had a bird without any white on the chin, with uncertain locality; but surely not from the New Zealand seas. Mathews thinks that this must be another form, whose breeding place is so far unknown, but there is little doubt that it was an aberrant specimen, such as have been seen by several explorers; the measurement of the bill alone proves it not to have been *parkinsoni*!

† 1532. **Heteroprion desolatus macquariensis** Math. = *Pachyptila desolata mattingleyi* ?

Heteroprion desolatus macquariensis Mathews, *Birds Australia*, ii, p. 231 (1912—Macquarie Islands).

Type : “ ♀ ” ad., Macquarie Is., November 1899. H. Travers coll.

These specimens do not have a broader bill than Mathews' *mattingleyi* “ from the East Australian seas ”—there is some individual variation (possibly sexual !), and some “ *macquariensis* ” and “ *mattingleyi* ” are quite alike ; therefore, if *mattingleyi* is tenable, the Macquarie Islands birds must be united with it. Further investigation, however, is required to prove that, as the whole description of *mattingleyi* is “ narrower bill than any other subspecies of *desolatus*,” which does not hold good !

1533. **Heteroprion desolatus alter** Math. = *Pachyptila desolata altera*.

Heteroprion desolatus alter Mathews, *Birds Australia*, ii, p. 231 (1912—Auckland Is.).

Type : “ ♂ ” Auckland Is., south of New Zealand, March 1894. Ex Dannefaerd.

The four Auckland specimens I have seen have wider bills than the four from Kerguelen, but one of the latter, a ♂, has a wider bill than two females. The sexing of the Dannefaerd specimens does not show sexual differences, but cannot be relied on.

1534. **Fregettornis insularis** Math. = *Fregetta grallaria insularis*.¹

Fregettornis insularis Mathews, *Austral Avian Record*, ii, p. 124 (1915—Lord Howe Island).

Type : ♀ West coast of Lord Howe Island, 2.ii.1914. Roy Bell coll. No. 88.

The form from Lord Howe Island seems to be larger than the “ typical ” one inhabiting the waters off the west coast of southern South America : cf. Murphy, *American Mus. Nov.*, No. 124, p. 10, July 1924.

It is, however, doubtful if the birds from Rapa, Austral group, are the same, or still a larger form, the wings, according to Murphy, measuring 179–186, while the Lord Howe birds have wings of 170 (type of *insularis*), 167 (type of *innominatus*), 168 (type of *alisteri*), 156, 165, much smaller than the Rapa birds and mostly all intermediate between *F. grallaria grallaria* from the islands of Massatierra, Juan Fernandez, and Goat Island (teste Murphy), who found among scores of specimens not one bridging over the differences in size, viz. wings 151–158 in the Juan Fernandez form and 179–186 mm. in the Rapa one.

In any case the first of Mathews' three names must be accepted for the form nesting on Lord Howe Island, if we accept the few measurements as typical, though one is as small as some Juan Fernandez birds.

† 1535. **Fregettornis alisteri** Math. = *Fregetta grallaria insularis*.

Fregettornis alisteri Mathews, *Austral Avian Record*, ii, p. 124 (1915—Lord Howe Island).

Type : ♀ ad., S.W. Beach, Lord Howe Island, 23.ix.1913. Roy Bell coll.

† 1536. **Fregettornis innominatus** Math. = *Fregetta grallaria insularis*.

Fregettornis innominatus Mathews, *Austral Avian Record*, ii, p. 124 (1915—Lord Howe Island).

Type : ♀ Pines, Lord Howe Island, 21.v.1914. Roy Bell coll.

¹ See note under *royanus* !

1537. **Fregettornis royanus** Math. = ? *Fregetta grallaria insularis*.

Fregettornis royanus Mathews, *Austral Avian Record*, ii, p. 86 (1914—Lord Howe Island).

Type : ♂ Lord Howe Island, 3.iii.1914. Roy Bell coll. No. 168.

I have very little doubt that *royanus* is a melanistic *insularis* ; if this can be proved the Lord Howe Island form—if separable from *grallaria*—must be called *royana* !

? † 1538. **Fregetta tropica australis** Math. = *Fregetta tropica melanogaster* ?

Fregetta tropica australis Mathews, *Austral Avian Record*, ii, p. 86 (1914—New Zealand).

Type : Adult, New Zealand. From the Otago Museum. Wing 165 mm.

More material will have to be examined, to confirm that the form from the New Zealand waters is really larger than *melanogaster*.
